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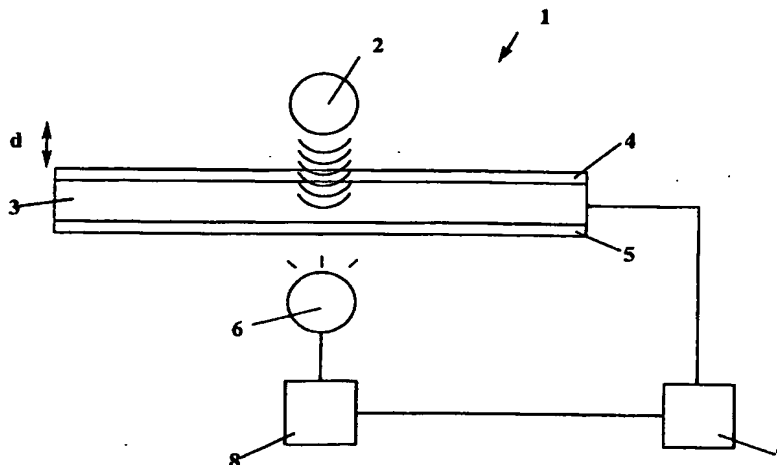
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(54) Title: OPTICAL CHEMICAL SENSING DEVICE WITH PYROELECTRIC OR PIEZOELECTRIC TRANSDUCER



(57) Abstract: This invention relates to a device (1) for detecting energy generated by non-radiative decay generated in a substance (2) on irradiation with electromagnetic radiation. The device (1) comprises a radiation source (6) adapted to generate a series of pulses of electromagnetic radiation, a transducer (3) having a pyroelectric or piezoelectric element and electrodes (4, 5) which is capable of transducing the energy generated by the substance (2) into an electrical signal, and a detector (7) which is capable of detecting the electrical signal generated by the transducer (3). The detector (7) is adapted to determine the time delay between each pulse of electromagnetic radiation from the radiation source (6) and the generation of the electric signal. The device (1) has a wide applicability in the fields of assays and monitoring.

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